STATE OF WASHINGTON TO: JIM BROWN

DEPARTMENT OF ECOLOGY

ORIG

DANIEL J. EVANS
GOVERNOR

JOHN A. BIGGS
DIRECTOR

Olympia, Washington 98504

February 28, 1972

Alaskan Copper Works
P.O. Box 3546
Seattle, Washington 98124

Gentlemen:

Enclosed is Waste Discharge Permit Number 3967, which has been issued in accordance with RCW 90.48.

We commend you for accepting your responsibility to prevent pollution by installing and maintaining the waste disposal facilities necessary to qualify for this permit.

Sincerely,

R. Jerry Bollen

R. Jerry Bollen
Assistant Director
Office of Operations

RJB:av

Enclosure

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
OLYMPIA, WASHINGTON

Permit No. 3967

In accordance with Chapter 90.48 RCW,
and Chapter 372-24 W.A.C.
A WASTE DISCHARGE PERMIT is issued to:

Date of Issue February 28, 1972

Date of Expiration February 28, 1977

Alaskan Copper Works (13011)
P.O. Box 3546
Seattle, Washington 98124

6th Avenue South Plant

Waste from the permittee's industrial operation located at 3200 - 6th Avenue So., Seattle, not exceeding 20,000 gallons per day, may be discharged to the Municipality of Metropolitan Seattle sewerage system at the following point of discharge: 3200 6th Avenue South, Seattle.

Said discharge is authorized subject to the following conditions:

1. The word "waste" in the above statement refers to the total volume of cooling and contaminated waters to be discharged to the sanitary sewer.

2. Chemical cleaning, descaling and film developing processes are to be operated in a manner that will prevent excessive loss of chemicals to the sanitary sewer. These shall include:

   A. Suspend treated parts above chemical solutons or drip pans for a reasonable time to minimize drag out.

   B. Collect spent chemical solutions for reprocessing or disposal in a manner that will prevent their entry into waters of the state.

3. Rinsewaters from the X-ray film developing process and from the descaling process shall be periodically monitored and treated, as necessary, to ensure that the combined effluent to the sanitary sewer shall meet the following requirements:

   A. Have a pH above 5.5. — ACIDITY.

   B. Contain less than 6.0 parts per million chromium.

   C. Contain less than 3.0 parts per million copper.

   D. Contain less than 6.0 parts per million nickel.

   E. Contain less than 0.1 parts per million silver.

   F. Contain less than 100 parts per million total oils.

Permit No. 3967

Date of Issue February 28, 1972

Alaskan Copper Works
Seattle, Washington

Date of Expiration February 28, 1977

4. A rinse water sump maintenance schedule, providing for regular inspection and periodic clean-out and replacement of limestone shall be submitted to the Department of Ecology for approval. A copy of this schedule shall be posted near the sump and shall be available for on-site review by the Department. The schedule shall include:

   A. pH of effluent - record each working day.

   B. Chromium concentration - record monthly (analyze at least once a month).

   C. Complete analysis in accordance with Condition 3 - record semiannually (analyze at least once every six months).

   D. Date of last clean out of sludge and replacement of limestone.

5. Contaminated waters shall not be discharged to the storm sewer.

6. Waste solvents, spent acid and alkaline cleaning solutions, chemical sludges, scrap metal and other solid waste material shall be collected for reprocessing or disposal in a manner that will prevent their entry into waters of the state.

7. Sanitary sewage is to be discharged into the sanitary sewer system.

8. All requirements and ordinances of the city pertaining to the discharge of wastes into the city sewer system are hereby made a condition of this permit.

9. In the event the permittee is temporarily unable to comply with any of the above conditions of this permit, due to breakdown of equipment or other cause, the permittee is to immediately notify this department. This report is to include pertinent information as to the cause and what steps are being taken to correct the problem and prevent its recurrence.

This permit does not allow the discharge of wastes other than those mentioned herein. A new application shall be submitted whenever a change in the waste to be discharged is anticipated.

This permit is subject to termination if the department finds: (1) That it was procured by misrepresentation of any material fact or by lack of full disclosure in the application; (2) That there has been a violation of the conditions thereof; (3) That a material change in quantity or type of waste disposal exists.

In the event that a material change in the conditions of the state waters utilized creates a dangerous degree of pollution, the department may specify additional conditions to this permit.

Permit No. 3967

Date of Issue February 28, 1972

Alaskan Copper Works
Seattle, Washington

Date of Expiration February 28, 1977

Nothing in this permit shall be construed as excusing the permittee from compliance with any applicable federal, state, or local statutes, ordinances, or regulations including those administered by local agencies under the Shoreline Management Act of 1971.

Signed R. Jerry Ballen
Assistant Director
Department of Ecology

For Office Use Only

Type .....
Permit No. .....
Date rec'd .....
Date Issued .....
Date Expired .....
New ..... Renewal.....
DOE Drainage Basin .....
Expired Permit No. .....
Advertising needed .....

DEPARTMENT OF ECOLOGY
State of Washington

Application is hereby made for a permit to discharge wastes into the state waters in accordance with Chapter 90.48 RCW and Chapter 372.24 WAC.

A. Name of Company Alaskan Copper Works

B. Mailing Address P.O. Box 3546, Seattle, Washington 98124

C. Location of Plant Discharging Waste if Different From Above

3200 6th Avenue South, Seattle Phone MA 3-5800

D. Specific Type of Industry Metal Fabrication

E. Name of Waterway Receiving Waste Discharge Municipal Sewer

F. Location of Industrial Waste Discharge Point (s) Municipal Sewer

G. Raw Water Supply: Source City Water Volume 15,000 to 20,000 Gallons/Day

G.1 Authorization For Use: Recorded Right No. _____ Public Supply Yes

Other _____
(Specify)

H. Waste Discharge Volumes:

	Average Gallons/Day	Maximum Gallons/Day
Industrial Processing	15,000	20,000
Cooling	Cooling water is used as rinse water, after colling the compresser.	

I. Plant Operation:

	Days per Year	Number of Employees per Shift		
		Day	Night	Swing
Average	252	45		30
Maximum	275	50		35

J. Raw Materials and Chemicals Used in Processes:

Brand Name	Chemical, Scientific or Actual Name	Quantity Used Per Day* Average	Maximum
AbP #26	Ammonium Bifluoride	6 lbs.	
	Nitric Acid 42 Deg.	20 lbs.	

K. **Production:**

Item	Quantity Produced Per Day* Average	Maximum
Metal Fabrication	10,000 lbs.	12,000 lbs.

L. **Sanitary Wastes:** Treatment None Discharged to Minicipal Sewer

M. **Explain any seasonal variation in waste discharge volumes, plant operations, raw materials and chemicals used in processes, and/or production:** Our volume of work is unpredictable on a seasonal basis, or any other basis. Our customers are varied, diversified, and located in all parts of the United States.

N. **Give a detailed description of the sources of all industrial wastes within your industry. Describe in detail the treatment given each of these wastes. Include in this description the disposal methods used for these wastes and also for any sludge collected by your waste treatment system. Include a schematic flow diagram showing the sources of all wastes and their flow pattern. Submit this information with your application as Exhibit 1.**

O. **Describe in detail the physical and chemical properties of the effluent to be discharged into state waters. Include in this description the sampling and analytical methods used to derive this information. Submit this information with your application as Exhibit 2.**

P. **Briefly describe any additional treatment or changes in waste disposal methods you are planning or have under construction. Submit this information as Exhibit 3. Include all information for previous questions, where additional space is necessary as part of Exhibit 3. Also include any additional information or comments you feel necessary to clarify this application with Exhibit 3.**

The information given on this application is complete and accurate to the best of my knowledge.

W. A. Meacham
Signature

W. A. Meacham
Printed

Chief Engineer
Title

11/29/71
Date

***Please specify units. For example: Tons per day, pounds per day, barrels per day.**

ALASKAN COPPER
SEATTLE Works WASHINGTON

FABRICATORS OF CORROSION-RESISTING METALS

Telephone 623-5800
TWX 910-448-2098
Telex 032-918

P.O.Box 3946
3660 E. Marginal Way S.
Seattle, Washington 98124

Exhibit No. 1

N. The chemical treatment of stainless steel in this plant is limited to two processes, the major one is passivating and pickling in one solution. The minor one is cleaning stainless steel prior to welding.

1. Passivating and pickling:

Accomplished by dipping stainless steel in a solution of nitric acid of approximately 120 degrees F. From time to time an analysis is made for the determination of Nitric Acid concentration. This concentration varies from 200± grams per liter to 50± grams per liter. We are unable to have the ammonium bifluoride determined, our laboratory friends tell us it is not possible to make this determination. The ammonium bifluoride is not active unless in contact with stainless steel. Our controls are most casual, when the passivation is not satisfactory we add nitric acid, when the pickling action requires more ammonium bifluoride we add more.

After dipping in the above solution the stainless steel is dipped in a tank of water for rinsing, or hosed down with water. The water in the rinse tank is a continuous supply, that has been first used as cooling water in the air compressor.

From the rinsing operation the water runs, on the floor, to a sump. This sump is designed so that all the water must pass thru a bed of limestone on its way to the sewer. The sump contains four hundred pounds of limestone for neutralizing any acid that may be in the rinse water. Metro recently made a check analysis of our effluent, a copy of which is attached hereto.

Exhibit No. 1

2. Cleaning:

Accomplished by dipping stainless steel in a solution composed of Oakite Stripper R6 (6 to 8 oz. per gallon) and Oakite Acalaid (1 part Acalaid to 20 parts Oakite Stripper R-6) at a temperature of 150 degrees F. to 160 degrees F.

After dipping, the parts are removed from the solution and rinsed with water, the rinse water runs on the floor to the previously described sump, and then to the sewer.

As described by the Oakite Company, the Oakite proprietory products are as follows:

"Oakite Stripper R6: composed of alkalis, wetting agents, and glucomates."

"Oakite Acalaid: composed of aromatic hydrocarbons and wetting agents."

November 10, 1971

To: G. E. Ferris
A. L. Poole

From: D. A. Hilderbrand

Subject: Alaskan Copper Works (3600 E. Marginal Way S. and 3200 6th Ave. S.) pH and Metal Surveys

On November 2nd I ran a pH and metal survey on Alaskan Copper's rinsewater from their East Marginal Way plant and I did the same for their 6th avenue south plant on November 4th. The results are attached. Both plants are set up identically with rinsewaters from their nitric hydrofluoric acid tank going through a lime bed. Each site was sampled at the point where neutralized rinse waters enter the sewer. Neither location appears to have a problem.

DAH:mb

11/2/71 East Marginal Way		11/4/71 6th Avenue South	
Time	pH	Time	pH
9:25	6.2	9:05	5.7
9:40	6.4	9:20	6.0
9:55	6.4	9:35	6.2
10:10	6.5	9:50	6.3
10:25	6.5	10:05	6.1
10:40	6.5	10:20	6.0
10:55	6.5	10:35	6.1
11:10	6.6	10:50	6.3
11:25	6.6	11:05	6.4
11:40	6.5	11:20	9.4
11:55	6.3	11:35	9.2
12:10	6.3	11:50	9.1
12:25	6.3	12:05	9.4
12:40	6.3	12:20	9.1
12:55	6.4	12:35	9.8
13:10	6.5	12:50	9.3
13:25	6.5	13:05	8.6
13:40	6.5	13:20	8.3
13:55	6.5	13:35	8.3
14:10	6.6	13:50	8.2
14:25	6.6	14:05	8.2
14:40	6.6	14:20	8.1
14:55	4.7	14:35	8.1
15:00	5.2	14:50	8.2

Metals in Parts Per Million

	Chrome	Copper	Nickel	Lead	Zinc
11:40 11/2/71	0.50	1.42	1.20	0.22	0.82
14:55 11/2/71	0.88	1.01	0.92	0.10	0.56
Composite 11/2/71	0.40	0.87	0.66	0.18	0.42
Composite 11/4/71	0.18	0.18	<0.05	<0.10	0.05